

## ABSTRACT

A pentose such as ribose, arabinose, 2-deoxyribose,  
1-methoxy-2-deoxyribose or the like is reacted with a  
5 phosphoric acid donor such as a pyrophosphoric acid or an  
alkali metal salt thereof in the presence of an acid  
phosphatase. Thus, a pentose-5-phosphate ester can be  
produced, such as a ribose-5-phosphate ester, an  
arabinose-5-phosphate ester, a 2-deoxyribose-5-phosphate  
10 ester, a 1-methoxy-2-deoxyribose-5-phosphate ester or the  
like.